ABSTRACT

An exposure apparatus (10) that includes a support frame (12), a base frame (14), a first stage assembly (16), a second stage assembly (18), an optical frame (20), an optical device (22), and a measurement system (24) is provided herein. The exposure apparatus (10) is typically mounted to a mounting base (30). As provided herein, the optical frame (20), the optical device (22), and a portion of the measurement system (24) can be assembled as an optical assembly (36) that is isolated from the base frame (14) with an optical isolation system (42). Further, the base frame (14), at least a portion of the first stage assembly (16) and the second stage assembly (18) can be assembled as a base assembly (38) that is isolated from the support frame (12) with a base isolation system (40). With this design, the base assembly (38) is isolated from the support frame (12) with the base isolation system (40) and the optical assembly (36) is isolated from the base assembly (38) with the optical isolation system (42). As a result thereof, the assemblies (36), (38) are effectively attached in series to the mounting base (30) with the isolation systems (40), (42) and the optical device (22) is isolated from the mounting base (30) with two levels of isolation. The two levels of isolation systems (40), (42) better isolate the optical device (22) from vibration and disturbances. Further, with the design provided herein, the optical device (22) and the other components of the optical assembly (36) can be accessed relatively easily for service and adjustment.

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